

FORUM

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ENERGY PLANNING IN PALM BEACH COUNTY

ENERGY STUDY INITIATED

This year the Area Planning Board of Palm Beach County completed the first phase of a two year study to investigate the energy situation in Palm Beach County. The study was funded in part by a grant from the United States Department of Housing and Urban Development. This initial year of study involved the gathering and analysis of background information as well as the development of a methodology for an energy model of the County.

At this time data have been gathered and are still being gathered in order to quantify the energy profile within Palm Beach County. The data gathered were never before available for the County and will be used as input into a planning model next year. The objective of this study was to investigate areas previously not researched.

The intent of the study is two fold: (1) to systematically establish an energy resource data base and methodology which will help formulate a realistic and comprehensive energy conservation strategy, and (2) to prepare the people of the County for the anticipated changes in lifestyle which may result from changes in the County's energy posture.

ENERGY USE IN PALM BEACH COUNTY

The energy study analyzes both non-renewable and renewable sources of energy used in Palm Beach County. The non-renewable segment of energy are those resources currently in widespread use within the County. They include petroleum, natural gas, liquid petroleum gas (L.P.), and electric power. All the resources are basically derived directly from fossil fuels or are themselves a fossil fuel. The renewable sources of energy are those which also can be termed experimental, since at this time most can not be considered economically feasible. These sources include solar, wind, solid waste, and ocean related energies.

The energy study devotes a full section to each of these resources. Each section involves an explanation

of the resource, its use in Palm Beach County, the status of data availability along with the progress of data collection and analysis. Preliminary investigations reveal that the County used an estimated 230 million therms of energy in 1977. One therm is equivalent to 100,000 BTU's (British Thermal Units) of power. In similar terms, the energy used in the County last year would supply the average home owner with power for almost a century.

The pie chart shows the percentage of energy used by resource type in the County. Electricity is by far the most widely consumed energy source. It represents almost 65 percent of total energy consumption. It is followed by natural gas, which itself is used partially for the generation of electric power. Natural gas represents about 20 percent of the energy pie. Third is gasoline which accounts for 13 percent of total consumption. The last segment is L.P. gas which represents slightly less than two percent of energy usage.

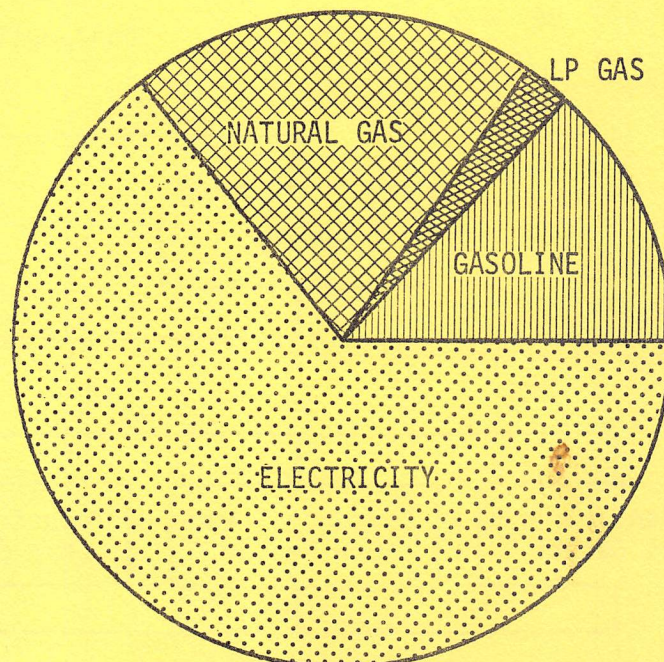
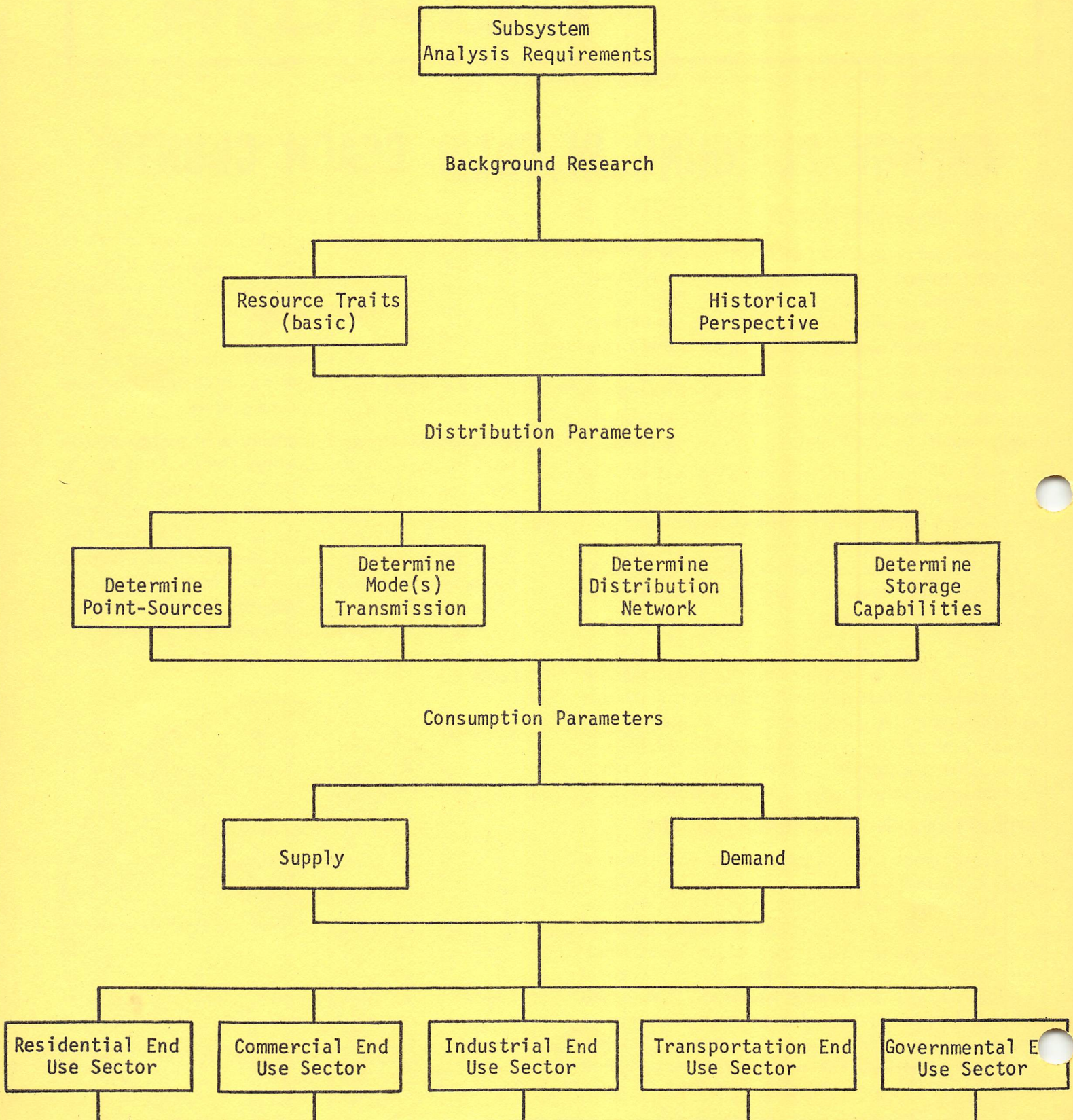


Fig. 1. 1977 Palm Beach County Energy Consumption

ENERGY RESEARCH METHODOLOGY



AN ENERGY RESEARCH MODEL

One of the end products of the energy interim report was the development of a research methodology. The flow chart of this methodology is depicted on the left of this page. This flow chart is the result of a compilation of various data analysis techniques aimed at producing an original data base for energy planning within Palm Beach County. Each energy subsystem referenced in the previous section will be analyzed by utilizing this methodology. FIGURE II depicts the type of data developed for each energy subsystem.

The analysis of each energy subsystem begins with a brief description of the resource's basic traits and a historical profile of the resource. The distribution system of the energy resources is then outlined. This analysis provides answers to the questions of where the County receives its energy and how it is distributed throughout the area. The consumption system of the energy resources is also discussed. This analysis examines the supply and demand components of the energy subsystem. Answers will be provided on who consumes energy in the County, who supplies the energy, how it is used and in what proportionate share it is used. The end use sectors investigated may include residential, commercial, industrial, transportation, and governmental depending on data availability.

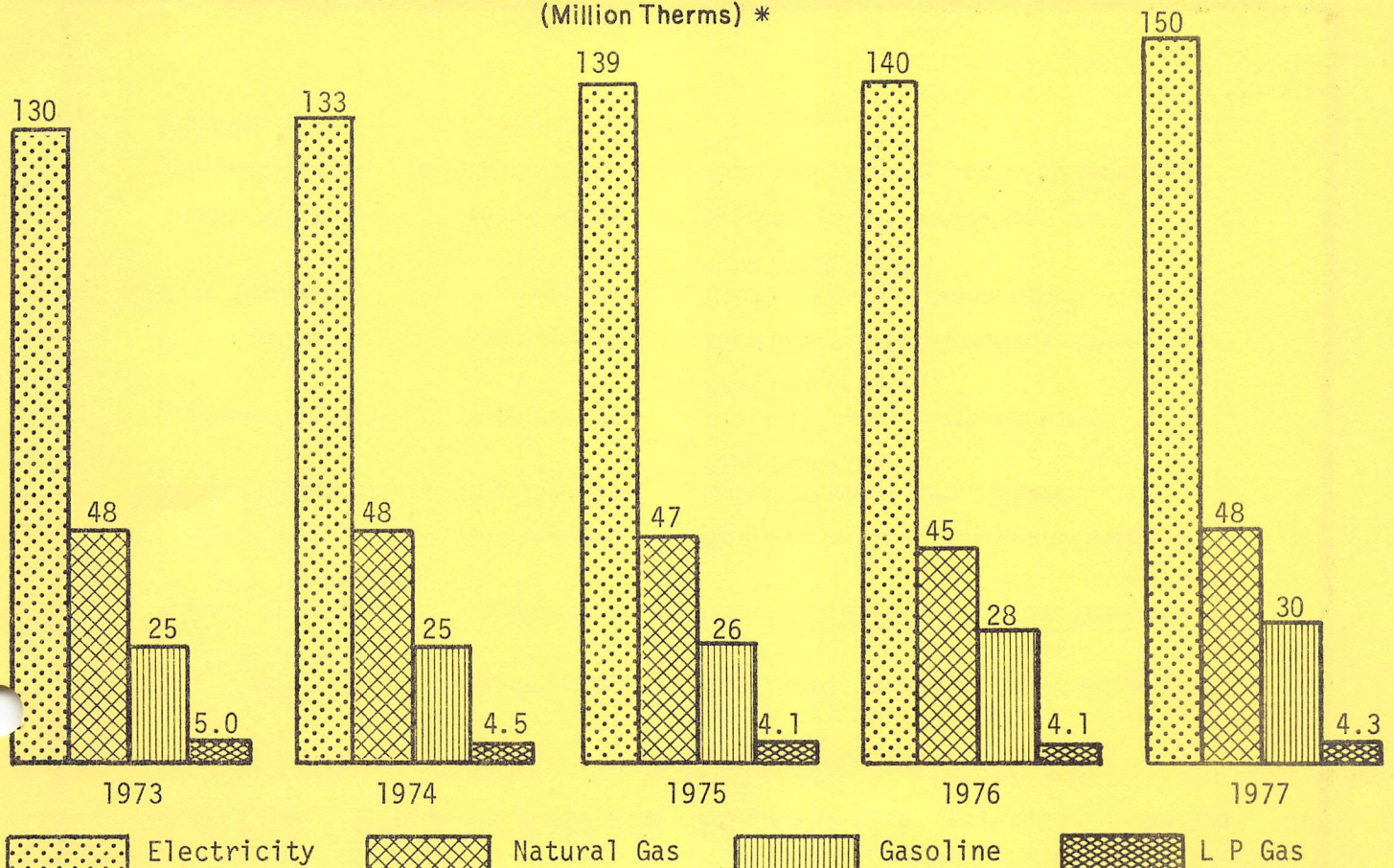
The major aim of these various analyses is to provide the people of Palm Beach County with a general understanding of the County's energy system. The data developed in the interim report and the conclusions made will also be used as input into an energy planning model. This model will be used in order to devise appropriate energy conservation strategies for the County.

PROSPECTUS

In 1979, the Energy Planning Base Study will move into its final phase. Data collected and analyzed will be complete for each energy subsystem. Determinations will be made as to the adequacy of the information for each energy subsystem and recommendations proposed for their future study. The data analyzed will be used as an input into an energy planning model and to update the existing energy element of the Regional Comprehensive Development Plan for Palm Beach County. The energy model will establish goals and objectives for energy planning in the County and will offer recommendations on energy conservation.

Copies of Energy Planning Base Study: Interim Report, are available from the Area Planning Board at 2300 Palm Beach Lakes Boulevard, Suite 200, West Palm Beach, Florida.

FIGURE II - ENERGY CONSUMPTION IN PALM BEACH COUNTY 1973-77
(Million Therms) *



* 1 Therm equals 100,000 BTU's

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